BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2020-263-E

Cherokee County Cogeneration Partners, LLC Complainant, v. Duke Energy Progress, LLC and Duke Energy Carolinas, LLC, Respondents.	))))))))))	**DIRECT TESTIMONY OF NATHAN HANSON**

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Nathan Hanson and my business address is 1700 Broadway, 35th Floor New York, NY 10019

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by LS Power as Senior Vice President, Energy and Commercial Management. I am also the Senior Vice President of Cherokee Cogeneration Partners, LLC (“Cherokee”).

Q. PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES AT LS POWER.

A. As Senior Vice President, Energy and Commercial Management, I oversee the energy and commercial arrangements which ensure smooth and cost efficient operations of the firm’s assets across its portfolio. Specifically with respect to Cherokee, I lead a team that manages Cherokee’s commercial arrangements and relationships with Duke Energy Progress (“DEP”) and Duke Energy Carolinas (“DEC,” together, “Duke”).

Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL QUALIFICATIONS.

A. I earned a Bachelor of Science in Mechanical Engineering from Worcester Polytechnic Institute, and an M.B.A. with honors from Rensselaer Polytechnic Institute.

Q. **PLEASE SUMMARIZE YOUR WORK EXPERIENCE**.

A. Prior to joining LS Power in 2011, I was a vice president in NextEra Energy Resource's Power Marketing division, responsible for wholesale load serving transactions and commodity hedge strategies for its portfolio. In addition, I had asset management and development responsibilities, including mergers and acquisitions, for NextEra's Northeast portfolio. Previously, I worked for Intercontinental Energy Corporation, focusing on power plant and large industrial development and asset management. I began my career with General Electric, where I focused on training and operations of power plants utilized in the Naval Nuclear program.

Q. **WHAT IS LS POWER?**

A. LS Power invests in, develops, finances, constructs, and operates power generation facilities. LS Power has currently owns and manages over 15,000 MW of generating facilities in operation throughout the United States. LS Power has managed over 3,500 MW of long-term Power Purchase Agreements ("PPAs").

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA?

A. No.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to 1) provide an overview of Cherokee's operation of its combined cycle cogeneration power generating facility in Cherokee County (the "Cherokee Facility"); 2) discuss the rights of the Cherokee Facility as a Qualifying Facility ("Qualifying Facility, or "QF") under the Public Utility Regulatory Policies Act of 1978 ("PURPA"), as further supported by Cherokee's expert witness; 3) the Cherokee Facility's relationship with Duke Energy Carolinas, LLC ("DEC") under a power purchase agreement ("PPA"); 4) Cherokee's unsuccessful attempts to negotiate a successor PPA with DEC and/or an arrangement to commit energy and capacity to Duke Energy Progress, LLC ("DEP"); 5) the economic consequences if Cherokee does not receive the avoided cost rate to which it is entitled, and 6) what relief Cherokee is seeking in this Docket.

Q. ARE ANY OTHER WITNESSES TESTIFYING ON BEHALF OF CHEROKEE?

A. Yes. Mr. Kurt G. Strunk, Managing Director from National Economic Research Associates, Inc., ("NERA"), testifies to 1) the economic and policy goals of PURPA, 2) Cherokee's eligibility for a capacity payment, and 3) preliminary calculations of a rate that Cherokee could have reasonably anticipated in a contract replacement or extension.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Cherokee is a 98 MW combined cycle cogeneration power generation facility that is registered as a Qualifying Facility under the Public Utility Regulatory and Policies Act of 1978 ("PURPA").[1] As a Qualifying Facility, Cherokee has a right to require one or more utilities of its choosing to purchase Cherokee's power at the utility's "avoided cost" rates. Despite Cherokee initiating the negotiations process in 2018, DEC and DEP have

[1] Though Cherokee's gross nameplate ability is higher than 98 MW, Cherokee's availability capacity net of its onsite electrical needs is 98 MW.

prevented Cherokee from negotiating a successor PPA based on a fair, transparent, and open process. Cherokee is simply seeking what PURPA and the Orders of this Commission require: a meaningful negotiation process, rates based on Duke's avoided costs, and terms and conditions appropriate for the Cherokee Facility and nondiscriminatory in nature.

Q. PLEASE DESCRIBE THE CHEROKEE FACILITY.

A. The Cherokee Facility is a 98 megawatt (MW) combined cycle cogeneration power generating facility in Cherokee County, South Carolina. The Cherokee Facility generates electricity, and is a Qualifying Facility ("QF"), as that term is defined in Section 210 of PURPA.[2]

Q. PLEASE DESCRIBE THE CHEROKEE FACILITY'S OPERATION AS A "COGENERATION FACILITY."

A. The Cherokee Facility is a cogeneration facility, consisting of one combustion turbine generator, one heat recovery steam generator, one extraction/condensing steam turbine generator, and interconnection equipment. Waste heat from the combustion of fuel in the combustion turbine is recovered as steam and routed to the steam turbine. Steam is extracted from the steam turbine for use in an ice production facility operated by its long-time industrial partner and neighbor, Reddy-Ice, a producer of ice for retail sale. Steam may be used for several purposes, including in the refrigeration process, to produce distilled water, or to melt waste ice in the ice making facility, which produces packaged ice for sale. As long as Cherokee has been under LS Power ownership, Cherokee has sold

[2] 18 U.S.C. § 824a-3; *Cherokee County Cogen. Partners, LLC*, Form 556, Docket No. QF94-160-012 (filed Aug. 3, 2012) (registering Cherokee as a Qualifying Facility).

its available energy and capacity to DEC under a long-term "PURPA" contract with DEC. The most recent such contract ran through December 31, 2020 and, as of today, has been extended by the Commission through August 28, 2021.

Q. PLEASE DESCRIBE THE CURRENT PPA BETWEEN CHEROKEE AND DEC.

A. Cherokee's PPA with DEC, approved by this Commission in Docket No. 2012-272-E, is a tolling agreement under which Cherokee makes its available energy and 86 MW of firm capacity available to DEC on a dispatchable basis in exchange for a fixed monthly payment, subject to performance requirements. Though Cherokee can offer as much as 98 MW of capacity to DEC and even more energy in certain hours (depending on various conditions at the site), 86 MW is the amount negotiated in the current PPA. DEC may dispatch the facility at its discretion as it would one of its own facilities. DEC provides for and pays for the natural gas, and communicates to Cherokee when it needs energy, consistent with how Duke dispatches from its Duke-owned facilities. DEC has dispatched the plant on average approximately 60% of all hours over the last three years. As explained by Witness Kurt G. Strunk, the tolling structure has two distinct advantages to DEC and its customers: 1) it protects customers from fuel price risk, and 2) it optimizes the efficiency of DEC's dispatch. Cherokee's current PPA with DEC originally had an expiration/termination date of December 31, 2020. The Commission extended the term of the PPA until August 28, 2021.

Q. WHAT ARE CHEROKEE'S RIGHTS AS A QUALIFYING FACILITY UNDER PURPA?

A. As Witness Strunk explains, Cherokee has a number of distinct rights under PURPA that are exclusive to Qualifying Facilities. At a high level, among PURPA's primary goals were 1) the conservation of electric energy, 2) increased efficiency in the use of facilities and resources by electric utilities, and 3) equitable retail rates for electric consumers. Qualifying Facilities' rights under PURPA include:

- The right to sell energy and/or capacity to utilities
- The right to be paid a rate for that capacity and energy based on the utilities' avoided costs
- The right to purchase backup service, transmission, and other services from utilities
- The right to create a "legally enforceable obligation" ("LEO") to commit itself to provide energy and/or capacity to utilities

Q. PLEASE EXPLAIN CHEROKEE'S RIGHT TO SELL ENERGY AND/OR CAPACITY TO UTILITIES.

A. PURPA designated a certain class of resources, Qualifying Facilities, particularly suitable for furthering its policy goals. As Witness Strunk explains, PURPA ensures a market for these Qualifying Facilities, and requires utilities like Duke to enter into arrangements with Qualifying Facilities like Cherokee. PURPA requires that utilities purchase all of the capacity and energy that Qualifying Facility makes available. To balance PURPA's resource goals with customers' interest in equitable retail rates, PURPA guaranteed that Qualifying Facilities like Cherokee would be paid for capacity and energy based on a utility's "avoided cost."

Q. PLEASE EXPLAIN CHEROKEE'S RIGHT TO BE PAID AT A RATE BASED ON THE UTILITY'S AVOIDED COST.

A**.** Avoided cost is the incremental cost of electric energy and/or capacity which, but for the purchase from the QF, a utility would generate itself or purchase from another source. In other words, avoided costs are, quite literally, the costs that the utility "avoids" as a result of its purchase from the Qualifying Facility. As Witness Strunk notes, the idea was to create a guaranteed market for Qualifying Facilities' capacity and/or energy, without imposing excessive costs on electricity consumers.

Q, PLEASE EXPLAIN WHAT AN AVOIDED COST CAPACITY PAYMENT IS.

A. "Capacity" is Cherokee's maximum electrical output capability. Utilities procure capacity to ensure they have sufficient resources to meet projected demand plus a reserve margin or a cushion to account for unexpected operating conditions. Under the existing PPA, Duke pays Cherokee for maintaining the unit's capability to produce energy, subject to certain performance parameters, regardless of how often the facility actually runs. Consistent with the concept of "avoided costs," the amount of the payment is based on the price that Duke would have otherwise paid to secure the capacity necessary to meet Duke's reserve margin requirements.

Q. PLEASE EXPLAIN WHAT AN AVOIDED COST ENERGY PAYMENT IS.

A. "Energy" is the actual MWs of energy that DEC elects to dispatch to meet its needs in real-time. DEC pays Cherokee on a per-MW basis for electricity that Cherokee actually produces when dispatched by DEC. Consistent with the concept of "avoided costs," the amount of payment is based on the price Duke would have otherwise paid to secure the energy necessary to meet Duke's energy needs in real time.

Q. PLEASE EXPLAIN CHEROKEE'S RIGHT TO BACKUP SERVICE, TRANSMISSION, AND OTHER SERVICES FROM UTILITIES.

A. PURPA and its implementing regulations recognize that Qualifying Facilities may need services from the utility as a practical matter in order to facilitate its purchase obligation, including backup power and transmission.[3] It should be uncontroversial that Cherokee

[3] *See* 18 C.F.R. § 292.303(a)-(e); 18 C.F.R. § 292.305(b).

may elect to avail itself of non-discriminatory transmission arrangements in order to assert its PURPA rights, both as a matter of PURPA and Duke's responsibility to offer non-discriminatory service as part of its Joint Open Access Transmission Tariff filed with the Federal Energy Regulatory Commission "FERC".

Q. WHY IS IT IMPORTANT THAT CHEROKEE BE GRANTED NON-DISCRIMINATORY TRANSMISSION ACCESS?

A. PURPA contemplates that Qualifying Facilities be able to sell their capacity and/or energy to the utility it interconnects with, and/or another utility of its choosing. This construct prevents the utility from taking a Qualifying Facility's output and reselling it at a profit to a different utility that offers higher prices for energy and capacity. By allowing the Qualifying Facility to sell to utilities other than the one with which it is directly interconnected, PURPA ensures that the Qualifying Facility would have the ability to put its power to a different utility where the avoided capacity and/or energy costs are higher than that available from its interconnecting utility. This is important because, as discussed below, PURPA allows Cherokee to sell to either DEP, DEC, or portions of its output to both.

Q. PLEASE EXPLAIN CHEROKEE'S RIGHT TO ESTABLISH A LEO TO COMMIT TO PROVIDE ITS CAPACITY AND/OR ENERGY TO DUKE.

A. In order to further developers' access to financing for new Qualifying Facilities, and to provide utilities enough notice of their purchase obligations such that utilities can avoid new capacity additions (and thus avoid the attendant costs of securing new resources), PURPA and its regulations established the concept of a LEO. A LEO can be a non-contractual or contractual commitment of a Qualifying Facility, communicated to the utility, that the Qualifying Facility commits its power to the utility.

Q. WHAT IS THE SIGNIFICANCE OF THE LEO DATE IN THIS DISPUTE?

A. The LEO date is critical here in establishing Cherokee's rights under PURPA. Under PURPA, Cherokee has a right to elect payment under one of two avoided cost calculations: 1) avoided costs calculated at the time the LEO is incurred; or 2) avoided costs calculated at the time of delivery. As Witness Strunk explains, Cherokee elected the first option, to have its avoided costs calculated at the time the LEO was incurred.[4] As discussed in the detailed course of our negotiations below, we established LEOs with both DEP and DEC in late 2018. This means the avoided cost is projected for the delivery period (here, starting in January 2021), calculated based on the then-current projections as of the LEO date.

Q. WHY DOES PURPA PROVIDE QUALIFYING FACILITIES THE OPTION TO ELECT COSTS CALCULATED AS OF THE DATE THE LEO IS INCURRED?

A. As Witness Strunk explains, PURPA helps Qualifying Facilities secure financing; but critically, it also serves to ensure that Qualifying Facilities can secure the payments to which they are entitled. This practice prevents utilities from stonewalling negotiations in order to displace the Qualifying Facility's capacity with their own resources. FERC has consistently found that the formation of a LEO depends entirely on the Qualifying Facility's intent and actions to commit its output to the utility; it does not depend in any way on the utility's actions.[5] This way, a utility cannot delay negotiations or a contract to

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[4] See Strunk Testimony, citing 18 C.F.R. § 292.304(d) ("Each qualifying facility shall have the option either: (1) To provide energy as the qualifying facility determines such energy to be available for such purchases, in which case the rates for such purchases shall be based on the purchasing utility's avoided costs calculated at the time of delivery; or (2) To provide energy or capacity pursuant to a legally enforceable obligation for the delivery of energy or capacity over a specified term, in which case the rates for such purchases, at the option of the qualifying facility exercised prior to the beginning of the specified term, be based on either: (i) The avoided costs calculated at the time of delivery; or (ii) The avoided costs calculated at the time the obligation is incurred.")

[5] *See* Strunk Testimony, n. 3.

avoid paying the Qualifying Facility for capacity. This case centers on the precise concern that FERC identified in consistently upholding this practice: Duke has purposely stonewalled Cherokee in securing a LEO and imagined barriers to the creation of a LEO that are not consistent with PURPA, all to avoid paying Cherokee the rates to which it is entitled.

Q. ARE THERE OTHER FACTORS THAT THE COMMISSION CAN TAKE INTO ACCOUNT IN REVIEWING CHEROKEE'S DESIRED RATE AND TERM?

A. As Witness Strunk has pointed out, a state commission can take into account the ability of an electric utility to dispatch the QF, the expected or demonstrated reliability of the QF and the desired duration of the obligation.

Q. ARE THOSE FACTORS RELEVANT TO THE CHEROKEE FACILITY?

A. Yes they are. As I noted, the Cherokee Facility is fully dispatchable by DEC whenever it wants to utilize it, which enhances DEC's reliability as compared to many other Qualifying Facilities in DEC's territory, which have non-dispatchable variable outputs, such as solar facilities. In addition, the Commission approved previous contract lengths of fifteen (15) years (with five (5) year extension) and the most recent contract of about eight (8) years, and the Commission allowed DEC to recover the related costs through rates. The commission's allowance of a contract of those lengths and the approval of rates therein underscores how the Commission can take into account the operational characteristics of Cherokee Facility, including its size and dispatch abilities, in determining the appropriate rate and the new contract term.

Q. WHY ARE CAPACITY PAYMENTS SO IMPORTANT FOR CHEROKEE?

A. Capacity payments are important for Cherokee because they provide a baseline predictable income stream for Cherokee regardless of DEC's decision to dispatch the facility. Capacity payments allow Cherokee to budget for staff, maintenance, capital investments and other needs necessary to ensure that Cherokee actually maintains the capability to run at any given time and respond to dispatch instructions from DEC. Capacity payments help cover Cherokee's fixed costs necessary to keep the plant available as a unit that DEC can dispatch any time at its option.

Q. HOW DO CUSTOMERS BENEFIT FROM GENERATORS RECEIVING FAIR CAPACITY PAYMENTS?

A. Capacity payments to Qualifying Facilities that are capable of providing it support the reliable operation of the electrical grid by providing compensation to generators that have the capability to respond to the dynamic needs of the grid. This is particularly important with the volume of intermittent generation coming online through renewables procurements. Facilities that can turn on when you need them, such as Cherokee, are valuable as energy and capacity resources. Capacity payments to Qualifying Facilities with these capabilities furthers the policy goals of PURPA by ensuring that Qualifying Facilities are fairly compensated for the services they provide to utilities.

Q. PLEASE DESCRIBE THE HISTORICAL RELATIONSHIP BETWEEN THE CHEROKEE FACILITY AND DEC.

A. The Cherokee Facility has reliably provided energy and capacity to DEC for the past 22 years, and has been an important part of South Carolina's electric grid, providing firm capacity and electricity that can be dispatched when needed. Over the last three years, the

Cherokee Facility was called on by DEC to provide energy over 60% of the time on average. This implies that Cherokee's cost to Duke to operate was very favorable as compared to other generation or supply that Duke had access to.

Q. PLEASE DESCRIBE CHEROKEE'S ATTEMPTS TO INITIATE NEGOTIATIONS FOR A SUCCESSOR PPA WITH DEC.

A. On September 17, 2018, Cherokee provided DEC with a "Notice of Commitment to Sell the Output of a Qualifying Facility" ("DEC Notice"). The DEC Notice is attached hereto as **Exhibit One**. As described in the DEC Notice, Cherokee made a "legally binding offer of all capacity and energy associated with" the Cherokee Facility, meaning that Cherokee would sell all the output of the Cherokee Facility to DEC. This offer would be effective on January 1, 2021, the day after the current PPA between Cherokee and DEC expired. The DEC Notice and its cover letter established a "legally enforceable obligation" ("LEO") for Cherokee to sell, and DEC to purchase, the capacity and energy of the Cherokee Facility under PURPA.

Q. WHY WOULD CHEROKEE INITIATE NEGOTIATIONS WITH DEC IN 2018, SOME TWO YEARS BEFORE THE TERMINATION OF THE PPA?

A. As set out in the DEC Notice, the parties have a historical practice of initiating negotiations "well before" a PPA was executed. As articulated by the DEC Notice, "[t]his practice helps to ensure a smooth transition to the next contract term by providing certainty to both parties with respect to the effective avoided cost rate, and enabling DEC to take the Facility into account in its resource planning and capacity needs." Further, as explained by Witness Strunk, advance contracting allows Qualifying Facilities to commit their output on a *future* basis so that the utility has enough notice in advance of the contract delivery date to actually avoid costs it would have otherwise incurred but/for the PURPA resource. Otherwise, the utility would not have sufficient notice of its purchase obligation to *actually* avoid capacity needs, and would not be able to avoid or defer investments as intended under PURPA to the ultimate detriment of customers.

Q. WHAT DID CHEROKEE'S COMMITMENT TO SELL THE OUTPUT OF THE CHEROKEE FACILITY ESTABLISH AS OF SEPTEMBER 17, 2018?

A. Because Cherokee committed to sell all the capacity and energy associated with the Cherokee Facility to DEC, PURPA provides that the avoided cost for that capacity and energy is established effective September 17, 2018 - the date of the DEC Notice. Of course, Cherokee had and has sold all the capacity and energy associated with the Cherokee Facility to DEC for many years, including but not limited to, the term of the current PPA.

Q. DID DEC ACKNOWLEDGE CHEROKEE'S COMMITMENT?

A. DEC did acknowledge its receipt of the notice, and made an offer to Cherokee on October 31, 2018. However, that offer did not include a payment for capacity because DEC did "not identify a capacity need in its Integrated Resource Plan ("IRP") until 2028." However, as described by Witness Strunk, it was inappropriate for DEC to refuse to include a payment for capacity. Moreover, DEC's offer, like several others made by DEC and DEP during this process, were based on "indicative pricing," contingent on Cherokee executing a PPA within an arbitrary amount of time, introducing a "shot clock," take it or leave it element to the offer. This is completely at odds with the concept of a LEO, which fixes the avoided cost rates as the then-current projections on the date the LEO is incurred in order to protect to the Qualifying Facility from a utility's self-interested behavior, as discussed by Witness Strunk. Conditioning pricing on the execution of a PPA within such a specified timeframe is unreasonable and contrary to PURPA.[6]

Q. WAS DUKE PAYING OTHER QFS FOR CAPACITY IN 2018?

A. Yes. As shown by the attached Schedule PP (**Exhibit Two**), DEC offered capacity payments throughout 2018 in its standard offer avoided cost rate. As Witness Strunk explains, Duke's refusal to offer payments for avoided capacity costs to Cherokee was discriminatory, as DEC's offer of a capacity payment to other QF facilities indicated that DEC should indeed have offered a payment for avoided capacity costs to Cherokee at the time Cherokee provided notice of the LEO.

Q. DID CHEROKEE RESPOND TO DEC'S OFFER?

A. Yes. On December 7, 2018, Cherokee sent DEC a term sheet proposal offering to provide energy and capacity from the Cherokee facility to DEC. This rate proposed by Cherokee as a way to facilitate negotiations was very reasonable, as it is consistent with the rate that Witness Strunk has calculated as an avoided cost that Cherokee could have reasonably expected at the time.

Q. WHY DID CHEROKEE ALSO EXPLORE A POWER SALE ARRANGEMENT WITH DEP BEGINNING IN 2018?

A. As Cherokee has communicated to both DEC and DEP, Cherokee is indifferent to whether or not it provides energy and capacity to DEC, DEP, or both companies.

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[6] *See FLS Energy, Inc*., 157 FERC ¶ 61,211 (2016) ("We find that, just as requiring a QF to have a utility-executed contract, such as a PPA, in order to have a legally enforceable obligation is inconsistent with PURPA and our regulations, requiring a QF to tender an executed interconnection agreement is equally inconsistent with PURPA and our regulations. Such a requirement allows the utility to control whether and when a legally enforceable obligation exists – e.g., by delaying the facilities study or by delaying the tendering by the utility to the QF of an executable interconnection agreement. Thus, the Montana Commission's legally enforceable obligation standard is inconsistent with PURPA and our regulations under PURPA.")

Following the merger of DEC and DEP in 2012, these companies touted the interconnected DEC and DEP systems that operate on an integrated, jointly dispatched basis. Accordingly, Cherokee sought to negotiate with both DEC and DEP in order to arrive at an arrangement beneficial to all parties. In fact, Duke employees, during a meeting at the Cherokee Facility on July 25, 2018, encouraged Cherokee to participate in a DEP "Capacity and Energy Market Solicitation."

Assuming that Duke was acting in good faith in extending this invitation, Cherokee did prepare a bid for that solicitation; which, if successful, would have resulted in a mutual agreement between Cherokee and Duke, such that Duke could honor its PURPA purchase obligation that way. Cherokee submitted a proposal on September 24, 2018 that Cherokee believed was consistent with what it was entitled to under PURPA—a different means to the same ends. However, Cherokee's proposal was not accepted by DEP, despite Cherokee's very high level of dispatch.

Q. DID CHEROKEE COMMIT TO SELL THE OUTPUT OF THE CHEROKEE FACILITY TO DEP?

A. Yes. On December 12, 2018, Cherokee submitted to DEP a "Notice of Commitment to Sell the Output of a Qualifying Facility" "DEP Notice" (**Exhibit Three**). As set out in the cover letter and DEP Notice, even if DEC did not have a capacity need at that time (an assertion Cherokee disputes), DEP did have a capacity need at that time according to its 2018 Integrated Resource Plan. The DEP Notice recognized that the Duke companies "can make the most efficient use of existing facilities and can avoid unnecessary capacity additions or procurements" by utilizing the energy and capacity committed by Cherokee. The DEP Notice and cover letter constitute a LEO under PURPA, and establish

December 12, 2018 as Cherokee's LEO date with DEP.

Q. DID CHEROKEE'S NOTICE OF COMMITMENT TO SELL THE OUTPUT OF THE CHEROKEE FACILITY TO DEP UNDERCUT ITS COMMITMENT TO DEC IN ANY WAY?

A. Allocating capacity from the same resource to different offtakers is completely consistent with my understanding of PURPA. Like the Cherokee facility, cogeneration QFs often support an industrial business that uses not only the steam or heat generated from the cogeneration process for their industrial operations or to provide a heat source to nearby buildings, but also a portion of the electrical output of the facility. PURPA also allows QFs to elect to have their power wheeled to a neighboring utility[7]—in this case, Cherokee was indifferent to the offtaker between DEC and DEP, and so gave Duke the option to optimize the capacity allocation. PURPA requires that QFs be able to split their energy and capacity allocations.[8] Therefore, given Duke's unique joint dispatch arrangement and the common employees between the companies, it was perfectly reasonable for Cherokee to put the power to both of the companies—in fact, it would have been impractical not to do so.

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[7] 18 C.F.R. § 292.303(d) ("If a qualifying facility agrees, an electric utility which would otherwise be obligated to purchase energy or capacity from such qualifying facility may transmit the energy or capacity to any other electric utility. Any electric utility to which such energy or capacity is transmitted shall purchase such energy or capacity as if the qualifying facility were supplying energy or capacity directly to such electric utility.")(Emphasis added).

[8] *JD Wind 1, LLC*, 129 FERC ¶ 61,148, at P 25 (2009), *reh'g denied*, 130 FERC ¶ 61,127 (2010). ("[A] QF has the option to commit itself to sell all or part of its electric output to an electric utility . . . Accordingly, a QF, by committing itself to sell to an electric utility, also commits the electric utility to buy from the QF; these commitments result either in contracts or in non-contractual, but binding, legally enforceable obligations.")

Q. WHAT OTHER POTENTIAL ARRANGEMENT DID CHEROKEE PROPOSE TO DEP IN THE DEP NOTICE?

A. Cherokee requested that the Cherokee Facility be recognized as a network resource for DEP, in the same manner that DEC's own generation is designated. Under such an arrangement, DEP would use its own transmission capacity to deliver power from the Cherokee Facility to DEP, and Cherokee would not incur transmission charges for that delivery. Moreover, utilizing the Cherokee Facility as a network resource would be consistent with Duke's obligation to jointly dispatch the DEC and DEP systems that resulted from the FERC merger proceeding that permitted the merger of Duke and Progress Energy, and the obligation that FERC imposed that the DEC and DEP joint systems not raise barriers to Qualifying Facilities.[9]

Q. WHAT WAS DEP'S RESPONSE TO CHEROKEE'S PROPOSAL TO BE RECOGNIZED AS A NETWORK RESOURCE?

A. DEP informed Cherokee that if Cherokee asserted its rights under PURPA, as opposed to executing a "negotiated agreement," then Cherokee would incur the cost of transmission if available rather than being treated as a network resource. Imposing point to point transmission costs on Cherokee based on whether Cherokee asserts its rights under PURPA or not is unreasonable, unfair, and unreasonably discriminatory in violation of

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[9] In response to concerns from intervenors in the Duke Energy merger with Carolina Power & Light, d/b/a/ Progress Energy Carolinas (now DEP), the applicants explained that both entities would remain subject to their PURPA obligations. *See Duke Energy Corporation, et al.*, 136 FERC ¶ 61,245 at ¶ 92 (2011) (Duke-Progress Merger Order) ("Applicants also explain that Evergreen Packaging's statement that the Proposed Transaction will eliminate Progress Energy Carolinas as a potential buyer of QF power is incorrect because both that company and Duke Energy Carolinas will continue to exist and fulfill their PURPA obligations.") FERC approved the merger with this understanding. *See* Duke-Progress Merger Order at ¶ 148 ("The Commission notes that Applicants' obligations under PURPA will remain, and that Evergreen Packaging will retain its right to file a complaint with the Commission should it conclude that Applicants are not meeting those obligations.").

[9] *See* 18 C.F.R. § 292.303(d).

PURPA. Cherokee's current PPA with DEC does not impose any transmission charges on Cherokee. The point-to-point transmission charges proposed by DEP in 2020 for delivering power to DEP are significant and would significantly impact the economic viability of Cherokee. DEP could easily add Cherokee as a network resource under its OATT, which would likely result in a zero or negligible change to DEP's network service charge, as compared to imposing point-to-point transmission charges on Cherokee. The Cherokee Facility would qualify as a Network Resource under the Duke Energy Open Access Transmission Tariff. Specifically, if the Duke entities the Cherokee Facility would be fully committed to Duke under the Joint OATT—and not to any other third party—to meet network load on a non-interruptible basis. *See* Duke Energy Joint OATT, section 1.37 (Network Resource).[10] Duke could have dedicated Cherokee's capacity in a way that would have maximized Cherokee's capacity value to Duke, but instead insists that Qualifying Facilities are not eligible for such treatment.

Q. DID DEP RESPOND TO CHEROKEE'S DEP NOTICE?

A. DEP did so on December 21, 2018, but did not agree that the DEP Notice constituted a LEO under PURPA. DEP claimed that Cherokee used a Notice of Commitment form intended for use by other types of QFs and was not applicable to the Cherokee Facility; however, as I recall, DEP did not even have a form available for QFs like Cherokee. In any case, despite our request that Duke inform us how to correct any deficiencies it perceived, Duke merely said we provided the wrong form, but did not direct us to the

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[10] This is consistent with the representations Duke made in requesting approval of the DEC/DEP merger: "The Joint OATT will apply to transmission service over the transmission facilities of Duke Energy Carolinas, Progress Energy Carolinas, and Progress Energy Florida. The most important feature of the Joint OATT is that it will eliminate any potential rate pancaking and will allow transmission services to be obtained over the transmission systems of these companies at non-pancaked rates." Duke Energy Corp., et al., Application for Authorization of Disposition of Jurisdictional Assets and Merger, at 13-14, Docket No. EC11-60-000 (filed Apr. 4, 2011)."

correct one. Cherokee used the only logical Notice of Commitment form that DEP made available, and in any event made the commitments and included all language necessary to create and constitute a LEO. In other words, DEP quibbled with the *form* of the Notice of Commitment issued by Cherokee, but communicated no objection to the *substance* of that Notice.

Q. WAS THERE ANYTHING ELSE TROUBLING REGARDING DUKE'S EARLY OFFERS TO CHEROKEE?

A. Yes. They offered a five (5) year contract term without any reasonable justification, which is much shorter than Cherokee's previous contracts and inconsistent with our prior course of dealing. They also offered an "as delivered" payment structure, which does not recognize our right to establish avoided cost pricing at the time the LEO is incurred. This Commission has recognized this right as applied to Cherokee. In approving the original contract between Cherokee and Duke, this Commission noted that FERC's PURPA regulations "allow for the use of estimates of future avoided costs to establish purchase rates based on estimates of future avoided costs which might differ from the utility's avoided cost rate at the time the power is delivered." (citing to 18 CFR 292.204(b)and 202.304(d) and 18 CFR 292.301(b)). *See Joint Application of Cherokee County Cogeneration Corporation and Duke Power Company for Approval of Purchased Power Agreement*, Docket no. 94-615-E, Order No. 95-26, p. 5, para. 6) (January 12, 1995).

Q. DO THE LEO FORMS REQUIRE ANY INFORMATION THAT DUKE DOES NOT ALREADY HAVE?

A. No. Duke dispatches our facility and has access to all fuel and operational characteristics necessary—in fact, Duke has far more information about our facility and production profile than it requires from other Qualifying Facilities under the forms.

Q. DID DEP OFFER RATES TO CHEROKEE IN RESPONSE TO THE DEP NOTICE?

A. Yes. On February 1, 2019, DEP made a proposal to Cherokee. However, the proposal did not provide any support for the proposed rates in that proposal.

Q. DID CHEROKEE SEEK ADDITIONAL INFORMATION FROM DEC AND DEP REGARDING THEIR 2018-2019 AVOIDED COST OFFERS?

A Yes. On April 30, 2019, Cherokee sent a letter to DEP seeking additional information regarding DEP's February 1, 2019 avoided cost rate proposal. On the same day, Cherokee sent a letter to DEC seeking the same information with respect to DEC's proposal. Cherokee sought the methodology, support, and back-up information used to calculate the energy and capacity components for those avoided cost rates, as well as support for the term and form of the agreements. Duke responded to both letters in a two-page response letter dated June 14, 2019. While Duke's letter contained a brief explanation making reference to Cherokee's detailed requests, Duke provided none of the information sought by Cherokee.

Q. WHY IS DETAILED BACK-UP INFORMATION FOR PROPOSED RATES CRUCIAL TO CHEROKEE IN THE PPA NEGOTIATION PROCESS?

A. Without this information, Cherokee cannot negotiate a PPA. Cherokee is not in the position to determine whether any proposed rate actually reflects avoided costs, absent review of the inputs, assumptions, and calculations that resulted in that proposed rate. Absent access to the requested data, which Duke refused to provide, Cherokee has not been able to conduct meaningful negotiations regarding a new PPA. The Commission has specifically identified support for avoided cost calculations as a lynchpin of the PPA negotiation process: "In the interest of transparency Duke shall be required to provide detailed information regarding those updated inputs on request to QFs that are negotiating a Power Purchase Agreement ("PPA") with Duke. *Order on Rehearing and* Reconsideration, Docket Nos. 2019-185-E and 2019-186-E, Order No. 2020-315(A) issued April 17, 2020.

Q. DID CHEROKEE TAKE ADDITIONAL ACTIONS TO TRY AND MOVE THE NEGOTIATIONS PROCESS ALONG IN 2020?

A. Yes. On April 9, 2020, Cherokee provided DEP with two proposals for extending the existing PPA. On April 21, 2020, DEP rejected those proposals, and directed Cherokee to execute the South Carolina Notice of Commitment Form. On May 4, 2020, Cherokee again requested from DEP avoided cost rates "along with supporting backup information of the energy and capacity rates as soon as possible …."

Q. DID DEP PROVIDE A RESPONSE TO CHEROKEE?

A. On June 24, 2020, DEP provided a draft PPA for Cherokee's review. DEP did not provide any of the backup information requested by Cherokee. Additionally, the form and structure of the draft PPA was designed for an intermittent resource such as a solar facility. As a result, the draft PPA was entirely inappropriate for the Cherokee Facility - a dispatchable gas-fired facility that provides firm capacity. Keep in mind that Duke knew the draft PPA provided in June 2020 was inappropriate for Cherokee due to the fact that Cherokee and DEC were operating under a dispatchable form of agreement. That DEP, an organization fully aware of the Cherokee Facility and its operation, would offer such an arrangement to Cherokee, is more evidence of unreasonable and discriminatory treatment. On July 20, 2020, Cherokee yet again requested that DEP provide backup information supporting its most recent proposal. On August 20, 2020, DEP provided a three-page letter in response. While DEP's letter contained a brief explanation making reference to Cherokee's detailed requests, DEP provided none of the detailed information sought by Cherokee.

Q. **HAVE THE PARTIES HAD ANY ADDITIONAL COMMUNICATIONS?**

A. As the Commission is aware, Cherokee filed this Complaint on November 2, 2020. Several months after the filing of the Complaint, DEC made a PPA proposal to Cherokee. While DEC's proposal anticipated using the form of the current PPA between the parties, and contemplated a ten-year term for the successor PPA, DEC offered pricing unacceptable to Cherokee. DEC did not provide any backup information to support its proposed rates. Once again, Cherokee has requested that DEC provide that backup information. Duke only recently provided more detailed information in response to a data request as part of this process, which Cherokee is currently reviewing. LS Power engaged Witness Strunk to review the October 2018 avoided cost rates that DEC offered. His estimate assumes the October 2018 energy rate offered by DEC is appropriate, and then adds the appropriate capacity payment to which Cherokee was entitled at the time. Witness Strunk uses Duke's then-effective capacity payment for standard offer resources as a proxy for the capacity payment to which Cherokee should be entitled. This calculation should be uncontroversial, as it uses Duke's own calculations from the relevant time period. However, I believe that this is a conservative calculation given Cherokee's proven ability to reliably dispatch, and the high frequency with which DEC has actually dispatched us.

Q. CAN YOU SUMMARIZE WHY AND HOW DEC AND DEP'S ACTIONS AND FAILURES TO ACT HAVE HAMPERED CHEROKEE IN ITS EFFORTS TO SECURE A PPA?

A. Cherokee started its attempt to obtain a successor PPA in 2018. Despite receiving numerous requests from Cherokee seeking the backup support for their avoided costs proposals, neither DEC nor DEP have given Cherokee the very information that would enable Cherokee to negotiate a PPA. Moreover, despite Cherokee's efforts to proposed workable arrangements consistent with PURPA through all available means, DEC and DEP have stymied those efforts. Duke prevented and delayed Cherokee from executing a PPA at rates to which it was entitled in 2018 through multiple actions. First, it offered proposed PPA rates and a proposed PPA term in 2018 that were different than those which were available from Duke to other Qualifying Facilities at the time. Duke's Schedule PP rates in effect at the time and available to other Qualifying Facilities included capacity payments and 10 year term, but these were not offered to Cherokee. Second, it offered a form of PPA that was inconsistent with the existing PPA between the parties, which Duke clearly was aware would not work for Cherokee as a dispatchable facility. Finally, Duke failed to provide any meaningful explanation of the shorter tenor and different form of contract in its proposal or supporting information for the proposed rates when asked. These failures, coupled with an arbitrary deadline before the proposal expired, made it impossible for Cherokee to execute a fair and reasonable agreement with Duke at the time. Duke then leveraged this situation to deny Cherokee its right to rates at the time it made its LEO and to further modify its proposed rates over the last 2+ years.

Q. WHAT IS THE COMMERCIAL CONSEQUENCE TO CHEROKEE IF IT IS NOT ABLE TO SECURE SUFFICIENT AVOIDED COST PAYMENTS FROM DUKE?

A. If Cherokee is no longer economic to run, it will have to be shut down. Duke has had a 20+ year relationship with Cherokee. It is unfortunate that Duke has elected to ignore its obligations under PURPA for its own reasons, disregarding the value of Cherokee's firm supply of capacity and energy.

Q. ARE THERE OTHER COMMERCIAL CONSEQUENCES IF CHEROKEE SHUTS DOWN?

A. Yes. Retirement of Cherokee would have economic consequences to its industrial partner, Reddy Ice. Cherokee and Reddy Ice have worked together collaboratively for many years and each's operations are integrated with the other's. The facilities are dependent on one another due to the ice maker's reliance on services provided by the cogeneration facility to produce the ice it sells. Reddy Ice has approximately 70 employees onsite who depend on Cherokee's and Reddy Ice's collaborative relationship and integrated facilities for their income. The economics of the entire integrated operation rely on Cherokee's continued right under PURPA to either 1) create a legally enforceable PURPA "put" obligation to Duke, or 2) direct Duke to wheel its power to another utility to which Cherokee would put its power.

Q. WHAT CONTRACT LENGTH DO YOU PROPOSE?

A. Consistent with our prior course of dealing, Cherokee would have expected a contract length between eight and twelve years. Cherokee recognizes that selection of a contract length is not a science, but we request a contract length of ten years, as this is consistent with the contract length that Duke provided in its last offer to us. Additionally, as a practical matter, given the difficulties that Cherokee has experienced in securing a new contract, a shorter contract length could result in Cherokee returning to this Commission for relief in just a few years; thus, the ten year contract term furthers administrative efficiency. A longer contract length also provides greater certainty for Duke in its resource planning process and greater cost certainty for Duke's customers.

Q. WHAT RELIEF IS CHEROKEE ASKING THAT THIS COMMISSION GRANT?

A. Cherokee is entitled under PURPA to an agreement with DEC and/or DEP with rates set at appropriate avoided costs that are the product of transparent, open and fair negotiations. Cherokee is entitled under PURPA to avoided cost rates for energy and capacity effective as of its LEO date of September 17, 2018. It is further entitled to be deemed a network resource by Duke given their joint dispatch arrangements, such that Cherokee could deliver its power to provided energy and capacity to DEP and/or DEC in a way that optimizes Cherokee as a resource.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Duke Energy Carolinas, LLC
Michael Keen
Business Development Manager Renewable Compliance & Origination
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St. Petersburg, FL 33701
michael.keen@duke-energy.com

Kathy Dunn
Duke Energy - Distributed Energy Technologies
400 South Tryon Street
Mail Code: ST 14A
Charlotte, North Carolina 28202
Kathy.Dunn@duke-energy.com

Duke Energy Carolinas
526 South Church Street
P.O. Box 1006
Charlotte, North Carolina 28201-1006
Attn.: Director, Supply Side Resources
DERContracts@duke-energy.com

Copy to:

David Johnson
ST 14A 400 South Tryon Street
Charlotte, NC 28285
david.johnson@duke-energy.com

Date: September 17, 2018

Re: <u>Notice of Commitment to Sell Output of a Qualifying Facility – Cherokee County Cogeneration Partners, LLC</u>

Greetings:

Cherokee County Cogeneration Partners, LLC ("Cherokee") submits the enclosed executed Notice of Commitment to Sell the Output of a Qualifying Facility ("Notice") with respect to Cherokee's 86 MW cogeneration facility that currently sells its full output to Duke Energy Carolinas, LLC ("DEC"). The facility is a fully operational QF as described in the self-certification of qualifying facility ("QF") status filed with the Federal Energy Regulatory Commission ("FERC") in Docket No. QF94-160-012 (the "Facility"). By submitting this Notice, Cherokee is making a legally binding offer of all capacity and energy associated with the Facility to DEC as of January 1, 2021, the day after expiration of its current Power Sales Agreement between Cherokee and DEC dated June 28, 2012, effective between July 1, 2013 and December 31, 2020 ("Power Sales Agreement").

Consistent with DEC's and Cherokee's prior business practices with respect to the Power Sales Agreement, Cherokee submits this legally binding offer prior to the expiration of its present contract. DEC and Cherokee entered into the Power Sales Contract over a year before expiration of the prior agreement, and began negotiations well before the contract was executed (approximately January of 2012). This practice helps to ensure a smooth transition to the next contract term by providing certainty to both parties with respect to the effective avoided cost rate, and enabling DEC to take the Facility into account in its resource planning and capacity needs. Cherokee looks forward to working with DEC to reach mutually agreeable terms and establish the applicable avoided cost rate for the new contract.

The Notice establishes Cherokee's legally enforceable obligation ("LEO") under the Public Utility Regulatory Policies Act ("PURPA"), FERC's implementing PURPA regulations, and applicable FERC precedent. This Notice is consistent with the approach toward PURPA implementation referenced by FERC with respect to merger of DEC and Duke Energy Progress, LLC ("DEP"), where FERC expressly relied on the representations of the Duke merging parties that both DEP and DEC would each remain subject to their PURPA obligations post-merger. *See* Order on Disposition of Jurisdictional Facilities and Merger, 136 FERC ¶ 61,245 at ¶ 148 (2011).

Pursuant to PURPA and its implementing regulations, Cherokee establishes the avoided cost for its energy and capacity as of today, September 17, 2018, the date that the LEO is incurred. *See* 18 C.F.R. § 292.304(d)(2)(ii) (providing an unqualified right for QFs to establish avoided costs calculated at the time the LEO obligation is incurred). Cherokee provides its Form 556, Negotiated Pricing Template, and a DEC Notice of Commitment form, thereby establishing its LEO for DEC as of today, September 17, 2018 to purchase all of its output made available as of January 1, 2021, the day after the Power Sales Agreement expires. However, if DEC believes it needs additional information for Cherokee to establish the LEO, Cherokee requests that DEC inform Cherokee within five (5) business days.

We look forward to a productive process for negotiating and finalizing a new power purchase agreement for the Facility, which builds on the years of working together under the Power Sales Contract. If you have any questions regarding the enclosed information, please contact me at your convenience.

Sincerely,

____

Name: Carolyne Murff
Title: Senior Vice President
Cherokee County Cogeneration Partners, LLC

<u>Attachments</u>

Cherokee County Cogeneration Partners, LLC FERC Form 556
Negotiated Pricing Template
Notice of Commitment of Cherokee County Cogeneration Partners, LLC

SCHEDULE PP (SC)
PURCHASED POWER

AVAILABILITY (South Carolina Only)

Upon Seller's completion and Company's acceptance of a Purchase Power Agreement, this Schedule is available for electrical energy and capacity supplied by Eligible Qualifying Facilities (as defined below) to the Company, provided Seller is a Qualifying Facility as defined by the Federal Energy Regulatory Commission's (FERC) Order No. 70 under Docket No. RM79-54 and 18 C.F.R. §§ 292.203, 292.204, and 292.205. This Schedule is not available for electric service supplied by Company to Seller or to Seller who has negotiated rate credits or conditions with Company which are different from those below. This Schedule is not applicable to a Qualifying Facility owned by a Customer, or affiliate or partner of a Customer, who sells power to the Company from another facility located within one-half mile, unless the combined capacity is equal to or less than two (2) megawatts.

Service necessary for the delivery of power from the Seller's generating facilities into the Company's system shall be furnished solely to the individual contracting Customer in a single enterprise, located entirely on a single, contiguous premise. Service hereunder shall be restricted to the Company's purchase of energy or energy and capacity from the Customer's generating facilities up to the Contract Capacity specified in the Purchase Power Agreement which may be operated in parallel with the Company's system. Power delivered to the Company under this Schedule shall not offset or be substituted for power contracted for or which may be contracted for under any other schedule of the Company, in accordance with Company's applicable electric rates, riders, and Service Regulations on file with and authorized by the state regulatory agency having jurisdiction.

All qualifying facilities have the option to sell energy to the Company on an "as available" basis and receive energy credits only calculated using the Variable Rates identified in this Schedule for the delivered energy. The Variable Energy Credit shall constitute the "as available" avoided cost credit for Non-Eligible Qualifying Facilities. The Fixed Long Term Credit rates on this schedule are available only to otherwise eligible Sellers that establish a Legally Enforceable Obligation on or before the filing date of proposed rates in the next avoided cost proceeding, provided eligible Seller begins delivery of power no later than thirty (30) months from the date of the order approving the avoided cost rates set forth below, but may be extended beyond 30 months if construction is nearly complete and Seller demonstrates that it is making a good faith effort to complete its project in a timely manner.

Sellers not qualifying for the Fixed Long Term Credit rates remain eligible for the Variable Credit rates or the Fixed Long Term Credit rates proposed in the next avoided cost proceeding, which will be subject to adjustment if different rates are approved by the Public Service Commission of South Carolina ("Commission") in that proceeding.

Qualifying Facilities Eligible for Capacity and/or Energy Credits

In order to be an Eligible Qualifying Facility and receive Energy Credits under this Schedule, the Qualifying Facility must be a hydroelectric or a generator fueled by trash or methane derived from landfills, solar, wind, hog or poultry waste-fueled or non-animal biomass-fueled Qualifying Facility with a Contract Capacity of two (2) megawatts or less, based on the nameplate rating of the generator, which are interconnected directly with the Company's system and which are Qualifying Facilities as defined by the Federal Energy Regulatory Commission pursuant to Section 210 of the Public Utility Regulatory Policies Act of 1978.

Capacity Credits are limited to Eligible Qualifying Facilities located within Company's service area that are classified as New Capacity in accordance with FERC Order No. 69 under Docket No. RM79-55 and interconnected to Company's transmission or distribution systems. Eligible Qualifying Facilities receiving Capacity Credits under this Schedule shall also receive corresponding Energy Credits of like term.

TYPE OF SERVICE

The Company will furnish 60 Hertz service through one metering point, at one delivery point, at one of the following approximate voltages, where available, upon mutual agreement:

Single-phase, 120 or 240 volts; or
3-phase, 3-wire, 240, 480, 4160, 12470, or 24940 volts; or
3-phase voltages other than the foregoing, but only at the Company's option, and provided that the size of the Customer's contract warrants a substation solely to serve that Customer, and further provided that the Customer furnish suitable outdoor space on the premises to accommodate a ground-type transformer installation, or substation, or a transformer vault built in accordance with the Company's specifications.

The type of service under this Schedule shall be determined by the Company. Prospective customers shall ascertain the available voltage by written inquiry of the Company before purchasing equipment.

SCHEDULE PP (SC)
PURCHASED POWER

RATE

The Company shall pay Eligible Qualifying Facilities for energy and/or capacity furnished to the Company at the Credits set forth below as applicable. Such payments shall be reduced by both the Administrative Charge and any applicable Interconnection Facilities Charge.

Energy and Capacity Credits

Eligible Qualifying Facilities eligible for Company's Fixed Long-Term and/or Variable Energy and Capacity Credits shall be paid based upon the Seller's interconnection with Company's distribution or transmission system for all energy delivered to Company's system as registered or computed from Company's metering facilities. The Energy and Capacity Credit will be in accordance with the length of rate term for energy sales so established in the Purchase Agreement.

Administrative Charge	$ 11.07 per month
Interconnection Charge	The Interconnection Charge for each customer is set forth in the Agreement as outlined in the Terms and Conditions; however, the $25.00 minimum will not apply if the charge is for a meter only.

Interconnected to Distribution System:

	Variable Rate	5-Year Fixed Rate	10-Year Fixed Rate
I. Capacity Credit			
a. All On-Peak Energy per Summer Month per kWh:	6.11¢	6.33¢	6.68¢
b. All On-Peak Energy per Nonsummer Month per kWh:	2.37¢	2.45¢	2.58¢
II. Energy Credit			
a. All On-Peak Energy per Month per kWh	4.24¢	4.46¢	5.04¢
b. All Off-Peak Energy per Month per kWh	3.34¢	3.49¢	4.09¢

Interconnected to Transmission System:

	Variable Rate	5-Year Fixed Rate	10-Year Fixed Rate
I. Capacity Credit			
a. All On-Peak Energy per Summer Month per kWh:	5.97¢	6.18¢	6.52¢
b. All On-Peak Energy per Nonsummer Month per kWh:	2.31¢	2.39¢	2.52¢
II. Energy Credit			
a. All On-Peak Energy per Month per kWh	4.14¢	4.35¢	4.92¢
b. All Off-Peak Energy per Month per kWh	3.26¢	3.42¢	4.00¢

The Capacity Credits and Energy Credits of the Variable Rate are subject to change at any time during the term of contract as approved by the Public Service Commission of South Carolina.

DETERMINATION OF ON-PEAK AND OFF-PEAK HOURS

	Summer Months June 1 – September 30	Nonsummer Months October 1 – May 31
On-Peak Period Hours	1 p.m. – 9 p.m. Monday – Friday	6 a.m. – 1 p.m. Monday – Friday
Off-Peak Period Hours	All other weekday hours and all Saturday and Sunday hours. All hours for the following holidays shall be considered as Off-Peak: New Year's Day, Memorial Day, Good Friday, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving, and Christmas Day.	

RENEWABLE ENERGY CREDITS

Unless otherwise specified in the Company's agreements with the Seller, the sale of power under this schedule does not convey to the Company the right to renewable energy credits (RECs) or green tags associated with the energy delivered.

SCHEDULE PP (SC)
PURCHASED POWER

INTERCONNECTION FACILITIES CHARGE

For Eligible Qualifying Facilities, the installed costs for all facilities constructed or installed by Company to interconnect and safely operate in parallel with Seller's equipment shall be determined in accordance with Company's Terms and Conditions for the Purchase of Electric Power. When only the installation of Company's meter is required for the purchase of electric power, the $25 minimum monthly Interconnection Facilities Charge shall not be applicable.

POWER FACTOR CORRECTION

Unless the Seller is required by an Operating Agreement to adjust VAR production to support voltage control, when the Seller consumes VARs supplied by the Company or the Seller delivers VARs to Company, the Company may reduce the purchased energy measured in kilowatt-hours for that month by multiplying by the Average Consumed Power Factor. The Average Consumed Power Factor shall be the calculated on a monthly basis as the average kWh divided the average kVAh, where average kVAh shall be the square root of the sum of the average kWh squared plus the average consumed and delivered kVARh squared. Company reserves the right to install facilities necessary for the measurement of power factor and to adjust the Interconnection Facilities Charge accordingly, solely at the option of Company

CONTRACT CAPACITY

The Contract Capacity shall be as specified in the Purchase Power Agreement between Company and Seller. Only one such Standard Contract shall be permitted for any Qualifying Facility.

PAYMENTS

Credit billings to the Customer will be credited to the Customer's account, or, at the option of the Customer and upon ten (10) days' prior written notice, shall be payable to the Customer within fifteen (15) days of the date of the bill.

Bills under this Schedule are due and payable on the date of the bill at the office of the Company. Bills are past due and delinquent on the fifteenth day after the date of the bill. If any bill is not so paid, the Company has the right to suspend service. In addition, all bills not paid by the twenty-fifth day after the date of the bill shall be subject to a one and one-half percent (1 ½%) late payment charge on the unpaid amount. This late payment charge shall be rendered on the following month's bill and it shall become part of and be due and payable with the bill on which it is rendered.

CONTRACT PERIOD

Each Seller shall enter into a Purchase Power Agreement which shall specify the Contract Capacity committed for delivery throughout the term of the contract and shall specify the initial term and associated rate.

SOUTH CAROLINA POWER EXCISE TAX

The Customer shall be responsible for any and all taxes including, but not limited to, the Electric Power Excise Tax for the electric power generated by the Customer's facilities, which may be imposed under S.C. Code Ann. §12-23-10 (1976), as amended, or any equivalent statute or regulations.

Duke Energy Carolinas, LLC
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Business Development Manager Renewable Compliance & Origination
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michael.keen@duke-energy.com

Kathy Dunn
Duke Energy - Distributed Energy Technologies
400 South Tryon Street
Mail Code: ST 14A
Charlotte, North Carolina 28202
Kathy.Dunn@duke-energy.com

Date: December 12, 2018

Re: Notice of Commitment to Sell Output of a Qualifying Facility to Duke Energy Progress – Cherokee County Cogeneration Partners, LLC

Greetings:

Cherokee County Cogeneration Partners, LLC ("Cherokee") submits to Duke Energy Progress, LLC ("DEP") the enclosed executed Notice of Commitment to Sell the Output of a Qualifying Facility ("Notice") with respect to Cherokee's 86 MW cogeneration facility that currently sells its full output and is directly interconnected to Duke Energy Carolinas, LLC ("DEC"). The facility is a fully operational QF as described in the self-certification of qualifying facility ("QF") status filed with the Federal Energy Regulatory Commission ("FERC") in Docket No. QF94-160-012 (the "Facility"). By submitting this Notice, Cherokee is making a legally binding offer of all capacity and energy associated with the Facility to DEP as of January 1, 2021, the day after expiration of its current Power Sales Agreement between Cherokee and DEC dated June 28, 2012, effective between July 1, 2013 and December 31, 2020 ("Power Sales Agreement"). Cherokee has been providing capacity and dispatchable energy to DEC under this Power Sales Agreement.

Consistent with Cherokee's prior business practices with respect to the Power Sales Agreement, Cherokee submits this legally binding offer prior to the expiration of its present contract with DEC. This practice helps to ensure a smooth transition to the next contract term and will enable DEP to take the Facility into account in its resource planning and capacity needs. Cherokee looks forward to working with DEP to reach mutually agreeable terms and establish the applicable avoided cost rate for the new contract.

The Notice establishes Cherokee's legally enforceable obligation ("LEO") under the Public Utility Regulatory Policies Act ("PURPA"), FERC's implementing PURPA regulations, and applicable FERC precedent. This Notice is consistent with the approach toward PURPA implementation referenced by FERC with respect to merger of DEP and DEC, where FERC expressly relied on the representations of the Duke merging parties that both DEP and DEC would each remain subject to their PURPA obligations post-merger. *See* Order on Disposition of Jurisdictional Facilities and Merger, 136 FERC ¶ 61,245 at ¶ 148 (2011). The Duke companies also emphasized the economies of scale and efficiencies that would result by the interconnected DEC and DEP systems operated on an integrated, jointly dispatched basis, "to permit the more efficient operation of their combined resources."[1]

As Cherokee has explained in communications with DEC, Cherokee is indifferent as to whether or not it "puts" its energy and capacity to DEP, DEC, or both. While DEC has recently informed Cherokee that it does not have a current capacity need until 2028 and did not include a capacity component in its indicative avoided cost rates, Cherokee notes that DEP does have a capacity need, as evidenced by its 2018 Integrated Resource Plan and its recent request for proposal for capacity issued by DEP dated August 27, 2018. Therefore, even if DEC does not have a capacity need, the Duke companies can make the most efficient use of existing facilities and can avoid unnecessary capacity additions or procurements by facilitating Cherokee's PURPA of energy and capacity to DEP.

Cherokee, similar to DEC's own generation, may be recognized as a network resource for DEP.[2] Further, under 18 CFR § 292.303, it is the QF's option whether to sell to a directly or indirectly interconnected utility, as the relevant PURPA regulation provides that a utility "shall purchase" any energy and capacity from a QF indirectly connected that elects to have the power wheeled to the indirectly connected utility. Cherokee's request to sell to DEC, DEP, or both, optimizes Cherokee's value as a resource, helps avoid unnecessary capital additions, and is fully consistent with PURPA requirements, in general, and Cherokee's rights as a QF under PURPA, specifically

Pursuant to PURPA and its implementing regulations, Cherokee establishes the avoided cost for its energy and capacity as of today, December 10, 2018, the date that the LEO is incurred. *See* 18 C.F.R. § 292.304(d)(2)(ii) (providing an unqualified right for QFs to establish avoided costs calculated at the time the LEO obligation is incurred). Thus Cherokee requests that DEP tender its avoided cost rates to Cherokee as soon as possible to inform the companies' negotiations.

The documents attached hereto provide the information to establish a LEO for DEP to purchase all or part of Cherokee's energy and capacity output made available as of January 1, 2021, the day after its current Power Sales Agreement expires. However, if DEP believes it needs additional information for Cherokee to establish the LEO, Cherokee requests that DEP inform Cherokee within five (5) business days and detail the specific information requested.

We look forward to a productive process for negotiating establishing a new power purchase agreement for the Facility. If you have any questions regarding the enclosed information, please contact me at your convenience.

Sincerely,

Name: Carolyne Murff
Title: SVP

1 *Id.* at P 5.

2 Though Cherokee is physically interconnected to DEC, there should not be any impediment to Cherokee being designated as a DEP network resource and Cherokee's power being delivered to DEP. *See, e.g.*, Section 30.6 of the Joint OATT.

Cherokee County Cogeneration Partners, LLC

Attachments

Cherokee County Cogeneration Partners, LLC FERC Form 556
Negotiated Pricing Template
Notice of Commitment of Cherokee County Cogeneration Partners, LLC